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(54) Title: **METHOD FOR TREATING CANCER IN HUMANS**

(57) Abstract: **A method of treating and/or preventing cancer in a subject, preferably mammalian, more preferably human, by administering in an effective amount IL-21 polypeptide, polynucleotide, vector comprising an IL-21 nucleic acid sequence encoding an IL-21 polypeptide, variants, and fragments thereof, thereby acting as an anti-cancer agent by reducing, ameliorating, and/or eliminating the cancer; and a method of treating and/or preventing cancer in a subject by co-administering the IL-21 polypeptide, polynucleotide, IL-21 vector, variant, and fragments thereof, with an immunotherapeutic and/or chemotherapeutic agent for the treatment and/or prevention of cancer in a subject.**

WO 03/082212 A2